

# 5711 Search History

FILE 'HOME' ENTERED AT 09:36:05 ON 04 JUN 2003

L8 0 L7 AND ((BENZAMIDINE (S) AFFINITY ) OR ((ELU!NT OR ELUT####)  
(S) (ARGININE OR GUANINE)))

L9 0 L7 AND BENZAMIDINE (S) (SURFACE OR GEL OR IMMOBIL#### OR AFFINI  
TY OR ADSORB#### )

(FILE 'HOME' ENTERED AT 09:36:05 ON 04 JUN 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,  
BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,  
CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,  
DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 09:36:24 ON  
04 JUN 2003

L1 QUE TRYPSIN (S) AFFINITY

L2 QUE L1 AND (AMIDINE OR BENZAMIDINE OR ARGININE OR GUANINE)

L3 QUE TRYPSIN (P) STREPTOMYCES

L4 QUE L1 AND L3

FILE 'MEDLINE, CAPLUS, BIOSIS, LIFESCI, EMBASE, SCISEARCH' ENTERED AT  
09:43:15 ON 04 JUN 2003

L5 109 S L4

L6 49 DUP REM L5 (60 DUPLICATES REMOVED)

L7 47 S L6 NOT PY>2001

L8 0 S L7 AND ((BENZAMIDINE (S) AFFINITY ) OR ((ELU!NT OR ELUT####

L9 0 S L7 AND BENZAMIDINE (S) (SURFACE OR GEL OR IMMOBIL#### OR AFF

L10 3 S L7 AND BENZAMIDINE

L11 6 S L7 AND (ARGININE OR GUANINE OR AMIDINE)

L12 3 S L11 NOT L10

L13 41 S L7 NOT (L10-L12)

L14 4 S L13 AND (SPECIFIC (A) ACTIVITY)

L10 ANSWER 1 OF 3 MEDLINE

AN 2001128152 MEDLINE

DN 21010742 PubMed ID: 11126764

TI Anionic **trypsin** from chum salmon: activity with p-amidinophenyl ester and comparison with bovine and **Streptomyces griseus** **trypsins**.

AU Sekizaki H; Itoh K; Murakami M; Toyota E; Tanizawa K

CS Faculty of of Pharmaceutical Sciences, Health Sciences University of Hokkaido, Japan.

SO COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART B, BIOCHEMISTRY AND MOLECULAR BIOLOGY, (2000 Nov) 127 (3) 337-46.

Journal code: 9516061. ISSN: 1096-4959.

CY England: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200103

ED Entered STN: 20010404

Last Updated on STN: 20010404

Entered Medline: 20010301

AB An anionic **trypsin** from pyloric caeca of chum salmon (*Oncorhynchus keta*) was purified by ammonium sulfate and acetone fractionation followed by **affinity** chromatography, gel-filtration, and DEAE-anion exchange chromatography. The apparent molecular mass was about 24 kDa as determined by SDS-PAGE. The anionic chum salmon **trypsin** was moderately active toward esterase substrates such as tosyl-L-arginine methyl ester and tosyl-L-lysine methyl ester. Its amidase activity for benzoyl-L-arginine p-nitroanilide was comparative to those of bovine and **Streptomyces griseus** **trypsins**. Kinetic characteristics of anionic chum salmon, bovine, and **Streptomyces griseus** **trypsins** toward inverse substrate (p-amidinophenyl ester) were compared. Inverse substrate behaved as a specific substrate for anionic chum salmon **trypsin** with specific binding, efficient acylation, and relatively slow deacylation.

L10 ANSWER 2 OF 3 MEDLINE

AN 86059843 MEDLINE

DN 86059843 PubMed ID: 3934203

TI High-performance **affinity** chromatography of **trypsins** on Asahipak GS-gel coupled with p-aminobenzamidine.

AU Ito N; Noguchi K; Shimura K; Kasai K

SO JOURNAL OF CHROMATOGRAPHY, (1985 Sep 27) 333 (1) 107-14.

Journal code: 0427043. ISSN: 0021-9673.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198601

ED Entered STN: 19900321

Last Updated on STN: 19900321

Entered Medline: 19860115

AB An adsorbent for high-performance **affinity** chromatography of **trypsins** was prepared, based on a micro-particulate polyvinyl alcohol gel for high-performance liquid chromatography, Asahipak GS-gel. After the hydroxyl groups had been activated with 1,1'-carbonyldiimidazole, 6-aminohexanoic acid was coupled as a spacer, then p-aminobenzamidine, a specific ligand for **trypsin**-family enzymes, was immobilized on the spacer. Fluorometric detection of eluted protein and on-line assay of enzyme activity using a fluorogenic

substrate, peptidylmethylcoumarylamide, made it possible to attain very high sensitivity. Microgram amounts of bovine **trypsin** and **Streptomyces griseus trypsin** could easily be analyzed in a short time (less than 1 h).

L10 ANSWER 3 OF 3 MEDLINE  
AN 76120457 MEDLINE  
DN 76120457 PubMed ID: 2582  
TI **Affinity** chromatography of **trypsin** and related enzymes. I. Preparation and characteristics of an **affinity** adsorbent containing tryptic peptides from protamine as ligands.  
AU Kasai K; Ishii S  
SO JOURNAL OF BIOCHEMISTRY, (1975 Oct) 78 (4) 653-62.  
Journal code: 0376600. ISSN: 0021-924X.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 197604  
ED Entered STN: 19900313  
Last Updated on STN: 19950206  
Entered Medline: 19760423  
AB An adsorbent for the **affinity** chromatography of **trypsin** [EC 3.4.21.4] (AP Sepharose) was prepared. The ligand was a mixture of oligopeptides (mainly di- and tripeptides) containing L-arginine as carboxyl termini, and was obtained from a tryptic digest of protamine. **Trypsin** was absorbed at relatively low pH (7-4), but was not absorbed at the optimum pH of catalysis (8.2). This was clearly explained on the basis of the pH dependence of the interaction of **trypsin** with its products. Inactivated **trypsin**, trypsinogen, and chymotrypsin were not absorbed. The absorption of active **trypsin** was interfered with by either **benzamidine** or urea. From these observations, it is evident that AP Sepharose is an affinity adsorbent. AP Sepharose was useful for purification of commercial bovine **trypsin**. A preliminary application for the purification of **Streptomyces griseus trypsin** was also successful.

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS

AN 1975:1569 CAPLUS

DN 82:1569

TI Proteolytic enzymes of the K-1 strain of **Streptomyces** griseus obtained from a commercial preparation (pronase). VI. Stabilization of the **trypsin** component by calcium and guanidine

AU Russin, David J.; Floyd, Benjamin F.; Toomey, Thomas P.; Brady, Al H.; Awad, William M., Jr.

CS Sch. Med., Univ. Miami, Miami, FL, USA

SO Journal of Biological Chemistry (1974), 249(19), 6144-8

CODEN: JBCHA3; ISSN: 0021-9258

DT Journal

LA English

AB **Streptomyces** griseus **trypsin** was more thermolabile than the 2 other components in pronase which was homologous with bovine chymotrypsin. It was completely inactivated after heating to 60.degree. for 15 min. The heat stability of the enzyme was reduced in the presence of EDTA. Ca was the specific cation which stabilized the enzyme at higher temps. This **trypsin** denatured irreversibly in 8M urea (at 23.degree.) in low Ca<sup>2+</sup> concn., but was stable and active in this denaturant if 0.5M Ca<sup>2+</sup> was present. This latter property makes this enzyme a possibly useful agent in protein structural studies. Both the microbial and bovine **trypsin** bound guanidinium ion substantially. Guanidinium ion competitively inhibited the activity of each enzyme against N.alpha.-benzoyl-L-**arginine**-p-nitroanilide (I). Microbial **trypsin** had about 3-fold greater affinity for guanidine and about a 20-fold lower Km for I than did bovine, **trypsin**. Binding of guanidine with either enzyme produced no apparent inhibition of activity against the poor nonspecific substrate, p-nitrophenyl acetate, when compared to inhibitor-free solns. These findings suggest that guanidine assoc. with that part of the specificity site which binds the charged portion of basic substrate residues. The addn. of 0.2M guanidine-HCl to an 8M urea-10mM CaCl<sub>2</sub> soln. completely inhibited the autolysis of the microbial **trypsin** but only slightly decreased the rate of autolysis of the bovine enzyme. In 8M urea-10mM CaCl<sub>2</sub> and 1.0M guanidine-HCl, .apprx.90% of the activity of the microbial enzyme was retained after 2 hr even in the presence of another *S. griseus* serine endopeptidase known to be active and stable in this mixed denaturant soln. Therefore, guanidine appears to stabilize microbial **trypsin**. In the presence of Na EDTA and denaturant mixt., the microbial enzyme rapidly lost activity. Measurements of CD were made at pH 8 and revealed that 0.45M CaCl<sub>2</sub> completely protected the microbial enzyme against rapid unfolding by 8M urea, whereas this salt had little effect upon the rapid conformational transition of the bovine enzyme in this denaturant. Also 0.2M guanidine with a low Ca<sup>2+</sup> concn. could largely stabilize in 8M urea the conformation of the microbial enzyme. A study was carried out to see if the guanidine complex of either **trypsin** could demonstrate a changed specificity toward N-acylaminoacyl-p-nitroanilides. The results were entirely neg.

L12 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AN 1979:38590 BIOSIS

DN BR16:38590

TI N SUBSTITUTED **ARGININE** CHLOROMETHYL KETONES.

AU KEIL B

SO JAKOBY, WILLIAM B. AND MEIR WILCHEK (ED.). METHODS IN ENZYMOLOGY, VOL. XLVI. AFFINITY LABELING. XXVI+774P. ILLUS. ACADEMIC PRESS: NEW YORK, N.Y., USA; LONDON, ENGLAND. 1977 (RECD 1978), 229-235.  
ISBN: 0-12-181946-9.

FS BR; OLD

LA Unavailable

L12 ANSWER 3 OF 3 SCISEARCH COPYRIGHT 2003 THOMSON ISI

AN 2000:842430 SCISEARCH

GA The Genuine Article (R) Number: 370FC

TI Anionic **trypsin** from chum salmon: activity with p-amidinophenyl ester and comparison with bovine and **Streptomyces griseus trypsins**

AU Sekizaki H; Itoh K; Murakami M; Toyota E; Tanizawa K (Reprint)

CS HLTH SCI UNIV HOKKAIDO, FAC PHARMACEUT SCI, ISHIKARI, HOKKAIDO 061029, JAPAN (Reprint); HLTH SCI UNIV HOKKAIDO, FAC PHARMACEUT SCI, ISHIKARI, HOKKAIDO 061029, JAPAN

CYA JAPAN

SO COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY B-BIOCHEMISTRY & MOLECULAR BIOLOGY, (NOV 2000) Vol. 127, No. 3, pp. 337-346.

Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND.

ISSN: 0305-0491.

DT Article; Journal

FS LIFE

LA English

REC Reference Count: 34

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB An anionic **trypsin** from pyloric caeca of chum salmon (*Oncorhynchus keta*) was purified by ammonium sulfate and acetone fractionation followed by **affinity** chromatography, gel-filtration, and DEAE-anion exchange chromatography. The apparent molecular mass was about 24 kDa as determined by SDS-PAGE. The anionic chum salmon **trypsin** was moderately active toward esterase substrates such as tosyl-L-**arginine** methyl ester and tosyl-L-lysine methyl ester. Its amidase activity for benzoyl-L-**arginine** p-nitroanilide was comparative to those of bovine and **Streptomyces griseus trypsins**. Kinetic characteristics of anionic chum salmon, bovine, and **Streptomyces griseus trypsins** toward inverse substrate (p-amidinophenyl ester) were compared. Inverse substrate behaved as a specific substrate for anionic chum salmon **trypsin** with specific binding, efficient acylation, and relatively slow deacylation. (C) 2000 Elsevier Science Inc. All rights reserved.

- L13 ANSWER 1 OF 41 MEDLINE  
TI A mutant **trypsin**-like enzyme from **Streptomyces** fradiae, created by site-directed mutagenesis, improves **affinity** chromatography for protein **trypsin** inhibitors.  
AU Katoh T; Kikuchi N; Nagata K; Yoshida N  
SO APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, (1996 Aug) 46 (1) 15-21.  
Journal code: 8406612. ISSN: 0175-7598.
- L13 ANSWER 2 OF 41 MEDLINE  
TI Structure, distribution and composition of the extracellular matrix of human oocytes and cumulus masses.  
AU Dandekar P; Aggeler J; Talbot P  
SO HUMAN REPRODUCTION, (1992 Mar) 7 (3) 391-8.  
Journal code: 8701199. ISSN: 0268-1161.
- L13 ANSWER 3 OF 41 MEDLINE  
TI The inhibition of the enzymic activity of blood coagulation and fibrinolytic serine proteases by a new leupeptin-like inhibitor, and its structural analogues, isolated from *Streptomyces griseus*.  
AU Chi C W; Liu H Z; Liu C Y; Chibber B A; Castellino F J  
SO JOURNAL OF ANTIBIOTICS, (1989 Oct) 42 (10) 1506-12.  
Journal code: 0151115. ISSN: 0021-8820.
- L13 ANSWER 4 OF 41 MEDLINE  
TI Membrane-associated hyaluronate-binding activity of chondrosarcoma chondrocytes.  
AU McCarthy M T; Toole B P  
SO JOURNAL OF CELLULAR PHYSIOLOGY, (1989 Oct) 141 (1) 191-202.  
Journal code: 0050222. ISSN: 0021-9541.
- L13 ANSWER 5 OF 41 MEDLINE  
TI A sepharose derivative coupled with a leupeptin-like peptide aldehyde, glycylglycyl-L-argininal, and its use as an **affinity** adsorbent for **trypsin**.  
AU Nishikata M; Kasai K; Ishii S  
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1981 Aug 13) 660 (2) 256-61.  
Journal code: 0217513. ISSN: 0006-3002.
- L13 ANSWER 6 OF 41 MEDLINE  
TI **Affinity** chromatography of **Streptomyces erythreus** **trypsin**-like enzyme on Japanese quail ovomucoid.  
AU Nagata K; Yoshida N  
SO JOURNAL OF BIOCHEMISTRY, (1981 Apr) 89 (4) 1121-7.  
Journal code: 0376600. ISSN: 0021-924X.
- L13 ANSWER 7 OF 41 MEDLINE  
TI Interaction of **trypsin**-like protease from **Streptomyces griseus** with an immobilized inhibitor from kidney bean.  
AU Mosolov V V; Fedurkina N V; Valueva T A  
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1978 Jan 12) 522 (1) 187-94.  
Journal code: 0217513. ISSN: 0006-3002.
- L13 ANSWER 8 OF 41 MEDLINE  
TI **Affinity** chromatography of **trypsin** and related enzymes. III. Purification of **Streptomyces griseus** **trypsin** using an **affinity** adsorbent containing a tryptic digest of protamine as a ligand.  
AU Yokosawa H; Hanba T; Ishii S  
SO JOURNAL OF BIOCHEMISTRY, (1976 Apr) 79 (4) 757-63.  
Journal code: 0376600. ISSN: 0021-924X.

- L13 ANSWER 9 OF 41 MEDLINE  
 TI Isolation of a **trypsin**-like enzyme from **Streptomyces** paromomycinus (paromotrypsin) by **affinity** adsorption through Kunitz inhibitor-sepharose.  
 AU Chauvet J; Dostal J P; Acher R  
 SO INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, (1976) 8 (1) 45-55.  
 Journal code: 0330420. ISSN: 0367-8377.
- L13 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Expression and characterization of rat pancreatic secretory **trypsin** inhibitor-I and -II in *Saccharomyces cerevisiae*, and simple purification by **affinity** chromatography  
 AU Kato, Takaaki; Horii, Toshihiko; Fujiwara, Takashi; Kikuchi, Norihisa; Shin, Masaru; Nagata, Kiyoshi; Yoshida, Nobuo; Miyasaka, Kyoko; Funakoshi, Akihiro  
 SO Journal of Fermentation and Bioengineering (1996), 82(5), 444-447  
 CODEN: JFBIEX; ISSN: 0922-338X
- L13 ANSWER 11 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Cloning and expression of **trypsin**-like enzyme from **Streptomyces** fradiae for comparative analysis of functional regions of **Streptomyces** and mammalian **trypsins**  
 AU Kato, Takaaki; Kikuchi, Norihisa; Nagata, Kiyoshi; Yoshida, Nobuo  
 SO Journal of Fermentation and Bioengineering (1995), 80(5), 440-5  
 CODEN: JFBIEX; ISSN: 0922-338X
- L13 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Synthesis of N.alpha.-[3H]acetyl-L-lysine chloromethyl ketone and its use in the fluorographic detection of proteases  
 AU Nishikata, Makoto  
 SO Analytical Biochemistry (1993), 214(1), 222-6  
 CODEN: ANBCA2; ISSN: 0003-2697
- L13 ANSWER 13 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI The component separation and structure of thrombin inhibitor produced by *Streptomyces* S-254  
 AU Liu, Qiyang; Liu, Huazhen; Chen, Wei; Chi, Zhengwu  
 SO Zhongguo Kangshengsu Zazhi (1990), 15(5), 342-6  
 CODEN: ZKZAEY; ISSN: 1001-8689
- L13 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Sperm-immobilizing antibody-inducing antigen and its use in birth control  
 IN Isojima, Shinzo  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF
- L13 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI High-performance **affinity** adsorbents for **trypsin**-family enzymes prepared with TSKgel G3000PW  
 AU Kanamori, Akiko; Seno, Nobuko; Matsumoto, Isamu  
 SO Chemical & Pharmaceutical Bulletin (1987), 35(9), 3777-83  
 CODEN: CPBTAL; ISSN: 0009-2363
- L13 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Preparation of high-capacity **affinity** adsorbents using formyl carriers and their use for low- and high-performance liquid **affinity** chromatography of **trypsin**-family proteases  
 AU Kanamori, Akiko; Seno, Nobuko; Matsumoto, Isamu  
 SO Journal of Chromatography (1986), 363(2), 231-42  
 CODEN: JOCRAM; ISSN: 0021-9673

- L13 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Affinity gel titration: quantitative analysis of the binding equilibrium between immobilized protein and free ligand by a continuous titration procedure  
 AU Shimura, Kiyohito; Kasai, Kenichi  
 SO Analytical Biochemistry (1985), 149(2), 369-78  
 CODEN: ANBCA2; ISSN: 0003-2697
- L13 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Introduction of .omega.-carboxyl spacers onto cross-linked agarose gel beads by O-alkylation for the preparation of affinity adsorbents  
 AU Shimura, Kiyohito; Kasai, Kenichi  
 SO Journal of Chromatography (1984), 315, 161-6  
 CODEN: JOCRAM; ISSN: 0021-9673
- L13 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Affinophoresis of **trypsins**. Electrophoresis of **trypsins** in the presence of a soluble polyelectrolyte bearing **affinity** ligand  
 AU Shimura, Kiyohito; Kasai, Kenichi  
 SO Electrophor. '83 [Eighty-Three], Adv. Methods, Biochem. Clin. Appl., Proc. Int. Conf., 4th (1984), Meeting Date 1983, 619-25. Editor(s): Hirai, Hidematsu. Publisher: de Gruyter, Berlin, Fed. Rep. Ger.  
 CODEN: 51YDAV
- L13 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Light sensitization of a microbial protease  
 AU Kuan, Kenneth N.; Lee, Y. Y.; Melius, Paul  
 SO Journal of Applied Biochemistry (1982), 4(4), 384-90  
 CODEN: JABIDV; ISSN: 0161-7354
- L13 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Isolation of the chymotrypsin inhibitor from honey locust seeds  
 AU Mosolov, V. V.; Valueva, T. A.; Kolosova, G. V.  
 SO Biokhimiya (Moscow) (1982), 47(12), 2015-21  
 CODEN: BIOHAO; ISSN: 0006-307X
- L13 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Affinophoresis of trypsins  
 AU Shimura, Kiyohito; Kasai, Kenichi  
 SO Journal of Biochemistry (Tokyo, Japan) (1982), 92(5), 1615-22  
 CODEN: JOBIAO; ISSN: 0021-924X
- L13 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI **Streptomyces** rimosus alkaline and **trypsin**-like serine proteinases  
 AU Renko, M.; Longer, M.; Pokorny, M.; Turk, V.; Vitale, L.  
 SO Proteinases Their Inhibitors: Struct., Funct. Appl. Aspects, Proc. Int. Symp. (1981), Meeting Date 1980, 195-200. Editor(s): Turk, Vito; Vitale, Ljubinka. Publisher: Mladinska Knjiga, Ljubljana, Yugoslavia.  
 CODEN: 46QWA4
- L13 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Rapid purification of **Streptomyces** griseus **trypsin** by immobilized rice bran **trypsin** inhibitor  
 AU Tashiro, Misao; Sugihara, Nobuo; Maki, Zensuke; Kanamori, Masao  
 SO Agricultural and Biological Chemistry (1981), 45(2), 519-21  
 CODEN: ABCHA6; ISSN: 0002-1369
- L13 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2003 ACS

- TI **Affinity chromatography of trypsin** on Kunitz inhibitor linked to Sepharose  
 AU Chauvet, Jacqueline; Acher, Roger  
 SO Biochimie (1973), 55(10), 1323-4  
 CODEN: BICMBE; ISSN: 0300-9084
- L13 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Proteolytic enzymes of the K1 strain of Streptomyces griseus obtained from a commercial preparation (Pronase). Purification and characterization of the aminopeptidases  
 AU Vosbeck, Klaus D.; Chow, Kai-Fu; Awad, William M., Jr.  
 SO Journal of Biological Chemistry (1973), 248(17), 6029-34  
 CODEN: JBCHA3; ISSN: 0021-9258
- L13 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2003 ACS  
 TI Trypsin treatment of adipocytes. Effect on sensitivity to insulin  
 AU El-Allawy, R. M. M.; Gliemann, J.; Hjerresen, Gurli  
 SO Biochimica et Biophysica Acta (1972), 273(1), 97-109  
 CODEN: BBACAQ; ISSN: 0006-3002
- L13 ANSWER 28 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI Purification of the two-enzyme system catalyzing the oxidation of the D-proline residue of pristinamycin II-B during the last step of pristinamycin II-A biosynthesis.  
 AU Thibaut, Denis (1); Ratet, Nathalie; Bisch, Didier; Faucher, Didier; Debussche, Laurent; Blanche, Francis  
 SO Journal of Bacteriology, (1995) Vol. 177, No. 18, pp. 5199-5205.  
 ISSN: 0021-9193.
- L13 ANSWER 29 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI PURIFICATION AND CHARACTERIZATION OF TWO FORMS OF CYCLIC GMP-DEPENDENT PROTEIN KINASE FROM BOVINE AORTA.  
 AU LINCOLN T M; THOMPSON M; CORNWELL T L  
 SO J BIOL CHEM, (1988) 263 (33), 17632-17637.  
 CODEN: JBCHA3. ISSN: 0021-9258.
- L13 ANSWER 30 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI MOLECULAR AND FUNCTIONAL PROPERTIES OF PROTEIN SS-1 FROM SMALL RIBOSOMAL SUBUNITS OF STREPTOMYCES-AUREOFACIENS.  
 AU MIKULIK K; SMARDOVA J; JIRANOVA A; BRANNY P  
 SO EUR J BIOCHEM, (1986) 155 (3), 557-564.  
 CODEN: EJBCAI. ISSN: 0014-2956.
- L13 ANSWER 31 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI AFFINOPHORESIS OF TRYPSINS WITH AN ANIONIC AFFINOPHORE.  
 AU SHIMURA K; KASAI K-I  
 SO BIOCHIM BIOPHYS ACTA, (1984) 802 (1), 135-140.  
 CODEN: BBACAQ. ISSN: 0006-3002.
- L13 ANSWER 32 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI INTERACTION BETWEEN **TRYPSIN**-LIKE ENZYME FROM **STREPTOMYCES**-ERYTHRAEUS AND JAPANESE QUAIL OVO MUCOID.  
 AU NAGATA K; YOSHIDA N  
 SO J BIOCHEM (TOKYO), (1983) 93 (3), 909-920.  
 CODEN: JOBIAO. ISSN: 0021-924X.
- L13 ANSWER 33 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
 TI PURIFICATION AND CHARACTERIZATION OF A FOLATE BINDING PROTEIN FROM PORCINE CHOROID PLEXUS.  
 AU SULEIMAN S A; SPECTOR R  
 SO ARCH BIOCHEM BIOPHYS, (1981) 208 (1), 87-94.

CODEN: ABBIÄ4. ISSN: 0003-9861.

- L13 ANSWER 34 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI PARTIAL PURIFICATION AND CHARACTERIZATION OF A FOLATE BINDING PROTEIN FROM HUMAN CHOROID PLEXUS.  
AU SULEIMAN S A; SPECTOR R; CANCELLA P  
SO NEUROCHEM RES, (1981) 6 (3), 333-341.  
CODEN: NEREDZ. ISSN: 0364-3190.
- L13 ANSWER 35 OF 41 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
TI **AFFINITY** CHROMATOGRAPHY OF **TRYPSIN** EC-3.4.21.4 AND RELATED ENZYMES PART 5 BASIC STUDIES OF QUANTITATIVE **AFFINITY** CHROMATOGRAPHY.  
AU KASAI K-I; ISHII S-I  
SO J BIOCHEM (TOKYO), (1978) 84 (5), 1051-1060.  
CODEN: JOBIAO. ISSN: 0021-924X.
- L13 ANSWER 36 OF 41 LIFESCI COPYRIGHT 2003 CSA  
TI Studies on Fibrinolytic Serine **Trypsin**-Like Enzymes From **Streptomyces**.  
AU Buckley, D.E.; Jeffries, L.  
SO FEMS MICROBIOL. LETT., (1981) vol. 12, no. 4, pp. 405-408.
- L13 ANSWER 37 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
TI Subcellular distribution, properties and interrelationship of oestrogen receptors in endometrium and other target tissues.  
AU Jungblut P.W.; Hekim N.; Meyer H.H.D.; et al.  
SO Journal of Clinical Chemistry and Clinical Biochemistry, (1983) 21/8 (473-480).  
CODEN: JCCBDT
- L13 ANSWER 38 OF 41 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
TI Affinity labeling of steroid binding sites. Study of the active site of 20.beta. hydroxysteroid dehydrogenase with 2.alpha. bromoacetoxyprogesterone and 11.alpha. bromoacetoxyprogesterone.  
AU Strickler R.C.; Sweet F.; Warren J.C.  
SO Journal of Biological Chemistry, (1975) 250/19 (7656-7662).  
CODEN: JBCHA3
- L13 ANSWER 39 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI  
TI **AFFINITY**-CHROMATOGRAPHY OF **STREPTOMYCES**-ERYTHREUS **TRYPSIN**-LIKE-ENZYME ON JAPANESE QUAIL OVOMUCOID  
AU NAGATA K (Reprint); YOSHIDA N  
SO JOURNAL OF BIOCHEMISTRY, (1981) Vol. 89, No. 4, pp. 1121-1127.
- L13 ANSWER 40 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI  
TI **AFFINITY** CHROMATOGRAPHY OF **TRYPSIN** AND RELATED ENZYMES .3. PURIFICATION OF **STREPTOMYCES**-GRISEUS **TRYPSIN** USING AN **AFFINITY** ADSORBENT CONTAINING A TRYPTIC DIGEST OF PROTAMINE AS A LIGAND  
AU YOKOSAWA H (Reprint); HANBA T; ISHII S  
SO JOURNAL OF BIOCHEMISTRY, (1976) Vol. 79, No. 4, pp. 757-763.
- L13 ANSWER 41 OF 41 SCISEARCH COPYRIGHT 2003 THOMSON ISI  
TI ISOLATION OF A **TRYPSIN**-LIKE-ENZYME FROM **STREPTOMYCES** -PAROMOMYCINUS (PAROMOTRYPSIN) BY **AFFINITY** ADSORPTION THROUGH KUNITZ INHIBITOR-SEPHAROSE  
AU CHAUVET J (Reprint); DOSTAL J P; ACHER R  
SO INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, (1976) Vol. 8, No. 1, pp. 45-55.

L14 ANSWER 1 OF 4 MEDLINE  
 AN 76120060 MEDLINE  
 DN 76120060 PubMed ID: 1248926  
 TI Isolation of a **trypsin**-like enzyme from **Streptomyces** paromomycinus (paromotrypsin) by **affinity** adsorption through Kunitz inhibitor-sepharose.  
 AU Chauvet J; Dostal J P; Acher R  
 SO INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, (1976) 8 (1) 45-55.  
 Journal code: 0330420. ISSN: 0367-8377.  
 CY Denmark  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 197604  
 ED Entered STN: 19900313  
 Last Updated on STN: 19900313  
 Entered Medline: 19760419  
 AB A **trypsin**-like enzyme has been isolated from the filtrate of a **Streptomyces** rimosus forma paromomycinus culture. Purification involves acetone fractionated precipitation, ultrafiltration on a Diaflo UM 10 membrane and **affinity** adsorption on to Kunitz pancreatic **trypsin** inhibitor linked to Sepharose. The **trypsin**-like enzyme (paromotrypsin) appears homogeneous by zone electrophoresis on gelatinized cellulose acetate. **Specific activity** toward Tos-Arg-OMe, calculated from amino acid analysis, is about 220 mu mg-1. The overall yield in activity is about 30%. The molecular weight of the **trypsin**-like enzyme, determined by gel filtration, is around 22,000-25,000 daltons. Electrophoretic migration on cellulose acetate strips indicates an isoelectric point around 8. Amino acid composition has been determined; the protein comprises about 210 residues on the basis of a single histidine residue per molecule. Paromotrypsin is unstable in acidic medium and is not stabilized by calcium ions. Enzymic activity towards Bz-Argo-OEt is not increased by the addition of calcium ion in contrast to the activating effect observed on bovine **trypsin**. Paromotrypsin is inhibited by TLCK and NPGB; it interacts with naturally occurring bovine **trypsin** inhibitors such as soya bean and Kunitz pancreatic inhibitors, but not with chicken ovomucoid. Proteolytic specificity, examined by hydrolysis of oxidized Kunitz pancreatic inhibitor and characterization of resulting peptides, seems similar to that of bovine **trypsin**.

L14 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS  
 AN 1981:152455 CAPLUS  
 DN 94:152455  
 TI Rapid purification of **Streptomyces** griseus **trypsin** by immobilized rice bran **trypsin** inhibitor  
 AU Tashiro, Misao; Sugihara, Nobuo; Maki, Zensuke; Kanamori, Masao  
 CS Fac. Living Sci., Kyoto Prefect. Univ., Kyoto, 606, Japan  
 SO Agricultural and Biological Chemistry (1981), 45(2), 519-21  
 CODEN: ABCHA6; ISSN: 0002-1369  
 DT Journal  
 LA English  
 AB The **trypsin** activity of *S. griseus* Pronase-P was purified to homogeneity on an **affinity** column of rice bran **trypsin** inhibitor immobilized on CNBr-activated Sepharose 4B. The enzyme was eluted at acidic pH and showed only 1 component on SDS-gel electrophoresis. Purified trypsin had a relatively high **sp. activity** for trypsin substrates and no exopeptidase activity. The preparative method was rapid and highly efficient.